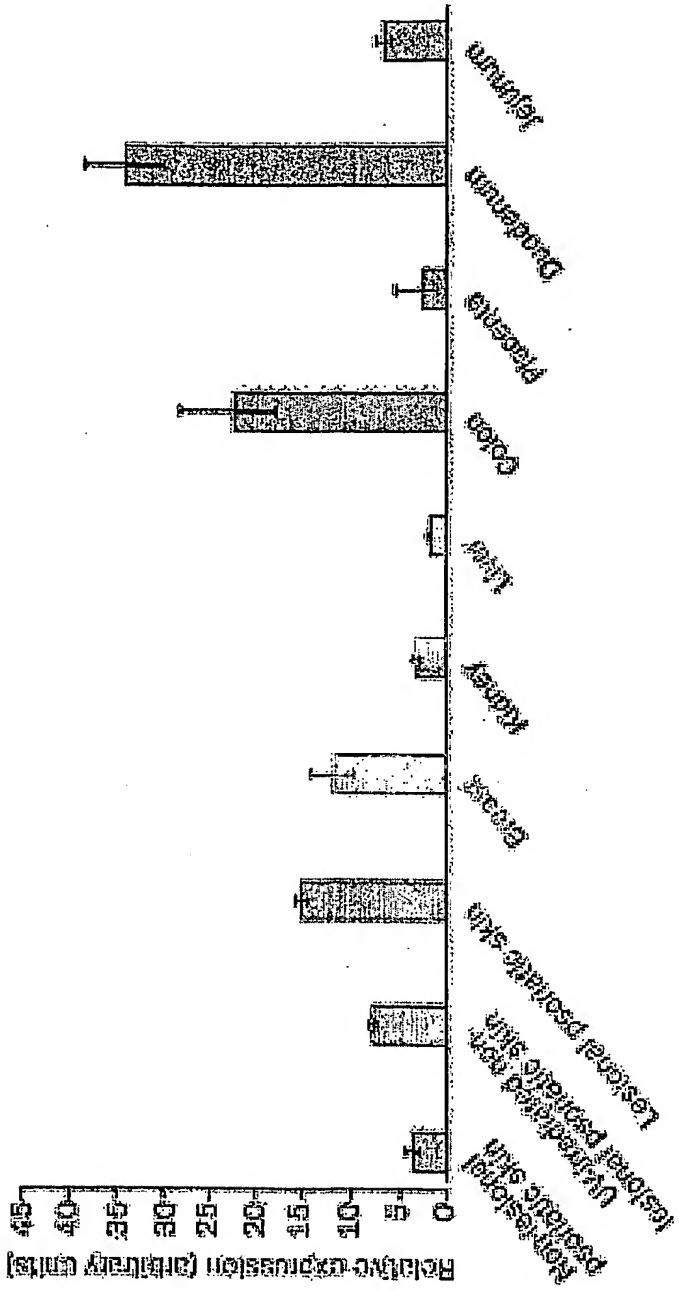

Relative expression (arbitrary units)
0
5
10
15
20
25
30
35
40
45
Normal skin
Psoriatic skin
Ulcerative colitis
Lesional psoriatic skin
Non-lesional psoriatic skin
Crohn's
Liver
Kidney
Breast
Placenta
Duodenum
Jejunum

Figure 1

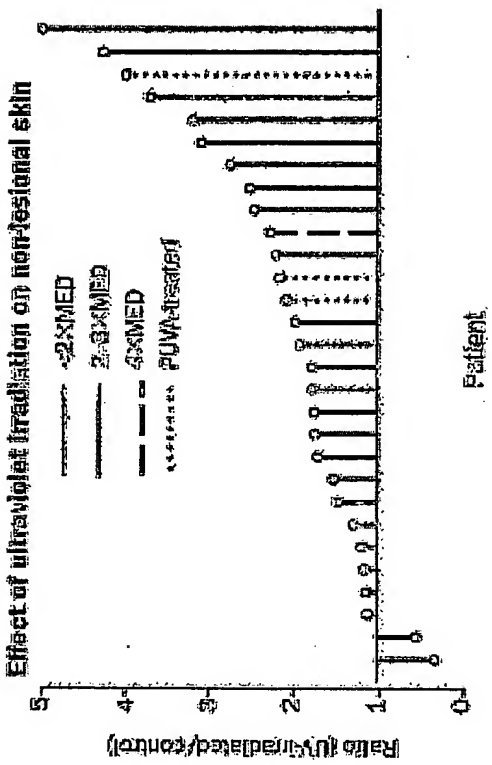


Figure 2A

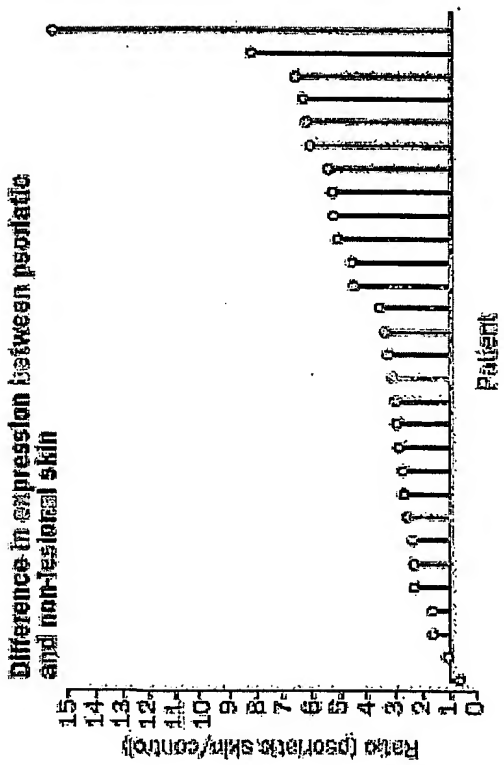


Figure 2B

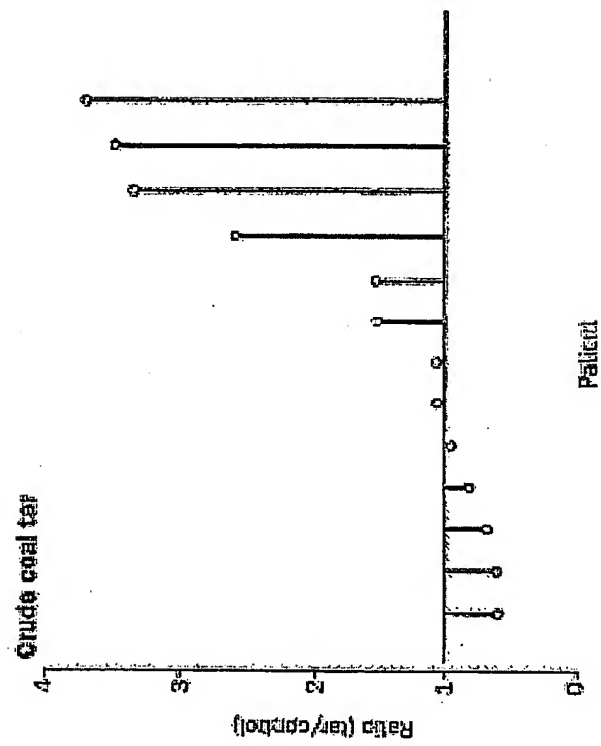


Figure 3A

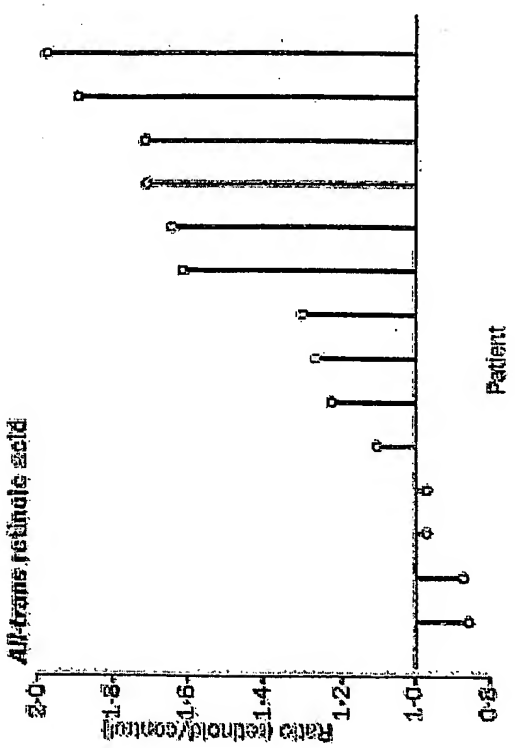


Figure 3B

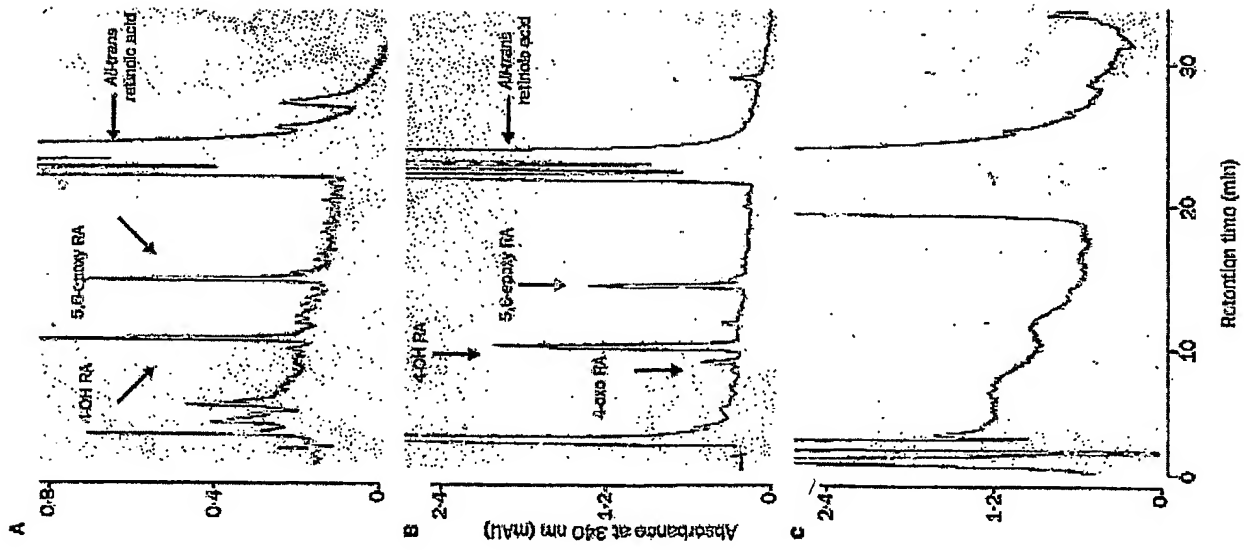
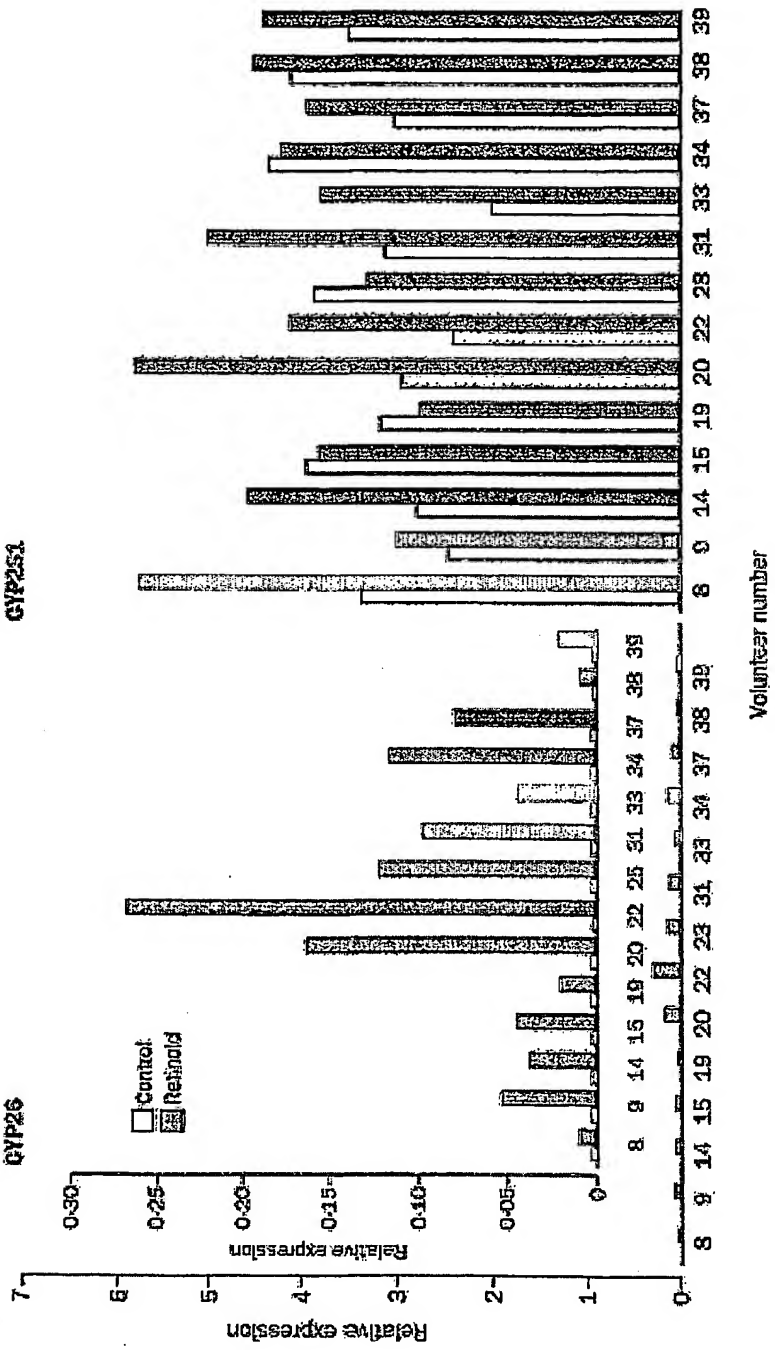

A
B
C
All-trans retinoic acid
5,6-epoxy RA
4-OH RA
4-oxo RA
0·8
0·4
0
2·4
1·2
Absorbance at 340 nm (mAU)
10
20
30
Retention time (min)

Figure 4

Figure 5


CYP26
Control
Retinoid
Relative expression
0·30
0·25
0·20
0·15
0·10
0·05
0
8 9 14 15 19 20 22 23 31 33 34 37 38 39
CYP2S1
Relative expression
7
6
5
4
3
2
1
0
8 9 14 15 19 20 22 28 31 33 34 37 38 39
Volunteer number

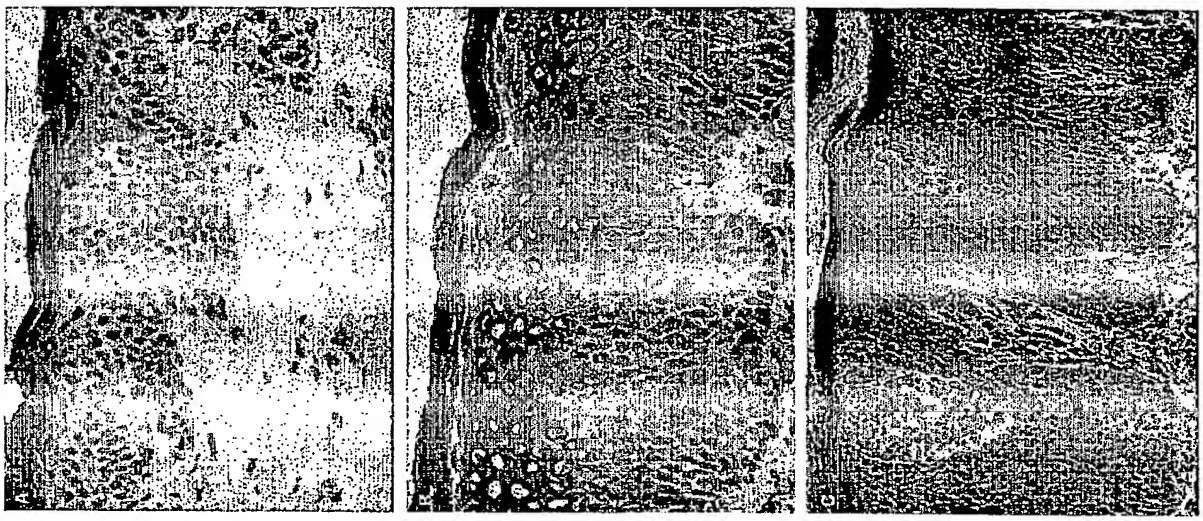


Figure 6

CYP2S1 promoter sequence 10kB immediately upstream of the initiating **ATG** (start of coding sequence)

-10,000bp

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TGAGCAGTGG GATGAGGGGA TGGAATGAAG GACTGGATAA GGGATAGGTG

GGGGTAAATG AGAGCATGGG GGAGGCAGTG CTCTCCTGAT GGTGGGGTGC

ACGAGTGGAT GGATGACAGG ATAAATAGGG AAGGGAGGAG GGATAGGATG

ACGAGACGGC TGTAGAAGCC CAGAGCAGAG AACATTGCTG CTTTGGGGTC

GATGATGTAA TCACCTCAAC TCACTGACAC TATTCCCAGC CACGGATGAT

GCTCACAGAA TCTGGGGAAG TCCAAGGCCT GGAAGCAGGA CTCATCTTGG

ACTTCCCCTT CTATCTAGTT CCAGGTGC**TG AATGA**GGCAC CTCTGAAGAA

GAGAAAGGAG AGAGACTAAG ATAAACAAGA CTGAGAGGAA AAAATCAGAG

TGGGCAGGCA GAGTGAGCCT GGTAAAGTGG ACCACAGAGC AGACAGGCTG

TGGCTTAGCC TTGGACAGCA GGTGGGGTTC CAGAGCCATA TGCTTGGAGG

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CAGCTTGCCA GAACCCTGGG GTTGGCAGCT TCCAGAATGG TTAGGAAAAT

CCACAGTAGT GGTCAGGCGC GGTGGCTCAT GCCTGTAATC CCAGCACTTA

GGGAAGCCAA GGCAGGCGGA TCACT*AGGTC AGGAGATCGA* AACCATACTG

GTTAACACGG TGAAACCCCG TCTCTACTAA AAATACAAAA AATTAGCTGG

GCATGGTGGC ATGCGCCTGT AATCCCAGCT ACTCGGGAGG CTGGGGCAGG

AGAATCACTT GAACCCGGGA GGCAGATATT GCAGTGAGCC GAGATCGCGC

CATTGCACTC CACCTGGGCA ACAGAGCGAG ACTCCGTCTC AAAAAAAAAA

AAAGAAAGAA AGAAAAAGAA AATCCACAGT AGGGGGCCAG ACACAAAAAT

GATCACTCCA GCACTGTCCA GCCCAGATCA GAGGGTTTCT GATGGGAAGT

Figure 7

AGCTGGGGTC AGGGCAAGGA GTGGTGGAAA AAGTCAGGCT GTTTTCAGCT

GAACTATACA AATGGGCATC TCCTGGCCCA GGGTGGGGAT TTGGCATTGC

AGAAAGGCCA GAATCCACCT GGAATCACTC AGTTACTGTG AAATCTATCT

TGGGAACCTA AGAATGTTTG CTTTCTAGAC TTGAGAATTT TGGACACTTG

ATTGCTTTCT GGATGAATTT TAGAGATTTA TAAATTGTAT TGAAAGTGTT

TATTCGACAA GATGTTTATT GAGCATCCAC AGTGTGTTAG GCACTGGGGA

TACAGCAACA CACAAAACAG ACAGAGAATC GGCCCTTATG GAGAGACCAT

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GCTCCCACCA GTAATCCCAG AACTTTGGGA GGCCGAGGCA GGTGGATCGC

TTGAGCCCTG GGCAACATAG CTAAACCCTG TCTCTACAAA AAATTAGCCA

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AGGATCGCTG ACATCTGTGA GGCAGAGGCT TCAGTGAGCA GAGATCACAC

TACTGCACTC CAGCTTAGGC AACAGAGCAA AACTCTGTCT TTAAAAAAAA

AAAAAAGTAG GCCGGGCAGG GCCGGGCCCA GTGGCTCATG CCTGTAATAC

CAGAACTTTG GGAGGCCAAG GTGGGTGGAT CACT**TGAGTG** *AGGTCA*GAAG

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CAAAAATTAG CTAGGCATGG TGTCACATGC CTGTAGTCCC AGCTACTCAG

GAAGCTGAGG CAGGAGTATC ACTTGAATCC AGGAGGCAGA GGTTGCAGTG

AACGGAGATC ACACCACTGC ACTCCAGCCT GGGCAACAAG TGTGAGACTC

CATCTCAAAA AAGAAAG**TGA ATCA**ATATAT AAAATATAAA AAGACAAAAA

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GAGAATGTAA ATTAGTCCAG CCACTATGAG AAACAGTATG GAAATTTCTC

AAAAAACTAT CATAAGGGCT GGGTGCGGTG GCTCACGCCT GTAATCCCAG

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AACCTAAATG TCCATCAACA GATGAATGGA TAAAGAATAT GTGGTACATC

TACACAATGG AAAACTATTT GGCCGTTAGA AAAAGAATAA AATCCTGTCA

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CAAGCCAGGT TCTAGATAGA AATATAATTA AGCATTGGCT GGGCACAGTG

GCTCACACCT GTAATCCCAG CACTTTGCGA GGCCGAGGTG GGCAGATCAC

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ATTAAGCATT AATCATGCTG CACTTTGGTC CACTTCCTTG TTGCTGAAAG

CCACATAGCT CTAGATGCTG ACCATTTGTA TCCCCATTGT TCTTATAGAC

AGCATCGCTG ACCTTAGAAT CATGATGTTT TTGTTAAGGA TCACGTCAGA

TGTTTTTTGG ACCCCCAATT CCAGCCACCA GTTTGAAGAC CCCTACAGAG

GATGGGGATT GTCAGGCCTC TGAGCCCAAG CTAAGCCATC ACATCCCCTG

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CTTGTGACCC CCACCCCTGC CAGCCAGAGA ACAACCCCCT TTGACTGTAA

TTTTCCACTA CCTACCCAAA TCCTATAAAA CGGCCCCACC CCTATCTCCC

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CTGGAATGTT AGAGGCTAGA ATCAATGCTA AAGAAGACCA CAGTCAAGGA

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*TCA*GGAGGTC GAGACCAGCC TGGCCAACAT GGTGAAACCC CAACTCTACT

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TACTCAGGAG GCTGAGGCAG GAGAATCACA TGAACCCAGG AGGCAGAGAT

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CTTCTGTTTG CTTACTCCCT ATCCGGGGGC CCAAGGCGCT GTCTCCGCCG

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GCCCAGCCGC GCGGAGCGCC TGGGAGAGGA GAAGGAGCCG ACCTGCCGAG (-1)

ATG